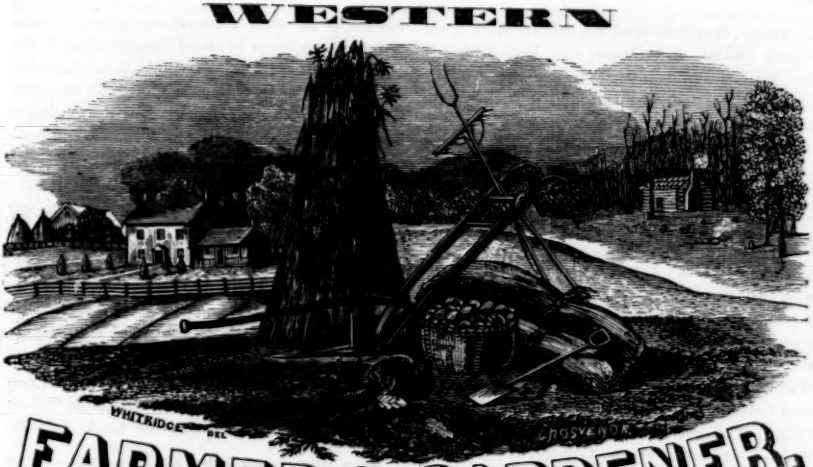

Vol. II. INDIANAPOLIS, Ia., JANUARY 15, 1846. No. 2.

EDITED BY
HENRY WARD BEECHER, Indianapolis,
EDWARD J. HOOPER, Cincinnati, Ohio.

S. V. B. NOEL, *Publisher and Printer.*

WESTERN FARMER AND GARDENER.

INDIANAPOLIS, THURSDAY, JANUARY 15, 1846.

We are often requested to give receipts for the Farmer and Gardener. Although we do it when requested, it is superfluous trouble; for the regular sending of the paper is to be regarded as evidence of payment—unless some other special arrangement has been made. Those who have it sent to them may understand that it is either paid for, or that it is sent gratuitously.

INDIANA FARMER AND GARDENER.

Will our exchange papers be kind enough to copy the following notice. The Western Farmer and Gardener of Cincinnati, and the Indiana Farmer and Gardener of Indianapolis, have been united. The joint paper, under the title of WESTERN FARMER AND GARDENER, will be published at Indianapolis and Cincinnati. As the senior editor resides at Indianapolis, and as the work is printed there, subscriptions and communications should be addressed to that office.

But, whenever it is more convenient, names and communications may be addressed to Western Farmer and Gardener, Cincinnati, care of Huxley & Co.; at which office any business connected with the paper may be transacted. But double postage is saved by addressing letters directly, whenever it is possible, to Indianapolis.

☞ Nos. 2, and 10, of the American Agriculturist we have failed to receive. Will Mr. Allen oblige us by sending them; as we wish to bind the volume, as every subscriber ought to do. A good paper is about as valuable, and sometimes is of more benefit in after-years, than during the year of its issuing.

☞ The *fifth* number of the Farmers' Library and Journal of Agriculture, never came to us although all others at this office to whom it was due received it. It was probably jostled out of its track by some misdemeanor of the mail. If some covetous agricultural post-master has laid hands on it, we certainly commend his judgment, though not his morals. He might purloin ten bank-bills, and not get half as much real good, as by stealing and reading one number of the "Library."

A NEW OFFER---TO THE FRIENDS OF EDUCATION.

While we are desirous to aid the practical farmer and gardener, it is our design, also, to procure as fast as possible, the introduction of agricultural instruction into schools, academies, and colleges. We therefore make the following

OFFER.

1. Every county in Indiana, Ohio, Illinois, and

Kentucky, that shall send ten subscribers and the money ($5.00) in advance, shall have a copy of the Farmer and Gardener sent to the COUNTY SEMINARY, for the reading room, if such a room there be, or the library.

2. Every *school district*, which shall send to us sixteen subscribers and the money in advance ($8.00) shall have a copy of the Farmer and Gardener for the use of the COMMON SCHOOL of such district.

3. A copy of the Farmer and Gardener will be sent *gratuitously* to the reading rooms of the following institutions of learning. Jacksonville College, Galesburgh College, *Illinois;* Indiana State University, Asbury University, Franklin College, Wabash College, Vincennes College, South Hanover College, *Indiana;* Transylvania University, Danville College, *Kentucky;* Woodward College, Miami University, Athens College, Western Reserve College, Oberlin College, *Ohio.*

HORTICULTURAL NOTES.

MEASURING WORM.—An old eastern farmer informs us that the *Geómetra defoliaria*, or Measuring Worm, now beginning to ravage western fruit and other trees, is an old acquaintance of his in Connecticut, about forty years ago. It ravaged there from 1810 for six or seven years afterwards, and is still to be found in many parts of the East. It was there called by the farmers, the canker worm. Hard winters seemed to have no effect on them; and although some contrivances in the shape of boxes were used at the stems of the trees, they were probably badly made, and in few instances prevented the female wingless moths from ascending the trees, which she usually does in the beginning of winter, to lay her eggs. It is only newly planted trees, or young trees planted the previous fall, that are actually killed by these loathsome worms,—their foliage being destroyed.

LABURNUM.—We are sorry to learn that in some parts of the West, the Laburnum or Golden Chain cannot bloom, on account of the frost cutting off the young wood. One person told us that he has had the shrub for six years, and that it had never bloomed for the above reason.—We should like to have more information on this point.

ESTIMATE OF STRAWBERRIES.—The old Scarlet Strawberry is about two weeks earlier than the Hudson, seems to stand drought better, is very sweet when quite ripe, and lasts about two weeks later than most other sorts. The Hudson is better for market, because it is less tender. The Necked Pine is a most delicious berry, but rather tender. It is of good size. Hovey's Seedling, as is well known, is the largest strawberry grown; it does not, however, seem to stand drought equal to the Early Scarlet.—Its flavor is good. It is a tolerably early sort. The La Grange is a fine fruit of a dark color, and somewhat musky flavor. Mottier's Seedling is a choice kind. We invite the information and opinions of cultivators on this subject, as well as all others.

GUANO VS. BUGS.—We heard continually all last season, that Guano applied round melons and cucumbers, is a preventive of the striped bug. We are strongly inclined to believe that it will be found to preserve trees also from the worm.

CURCULIO.—In consequence of the frost having destroyed most of our plums, we found the Curculio, last spring, attacking gooseberries, apples, and even currents; and Mr. G. Hill informs us, that on the 15th July, they attacked the black walnuts.

REED WHEAT.—A letter has been addressed to Mr. A. Randall, of our city, from George Lapping & Co., Louisville, accompanied with a sample of the Reed Straw Wheat, grown in Jefferson county, and cut about the 10th June. "It generally ripens," say the above gentlemen, "about the last week in May, but owing to late frosts and cold dry weather, it has ripened a week later this year. In Hickman county, (where the seed was procured,) it has been in successful cultivation for seven years; in Jefferson county, three years. The peculiarities are—1st. It never takes the rust: 2d. It always ripens from two to three weeks before our common varieties: 3rd. It yields from fifty to seventy-five per centum more than any other kinds cultivated here, and generally weighs sixty-three pounds to the bushel. While the farmers of the West have been sending to Alabama for seed wheat, would it not be worth their while also, to look nearer home, and try the Reed Straw, which can be procured at a small advance over mill-prices, and which has stood the test for three years in a soil and climate similar to that of Ohio bordering on Kentucky? Our farmers are very much delighted with the experiment in this seed, and we have no doubt of its universal cultivation throughout our own State and Missouri." We think it is highly probable that the hard straw of this wheat will prevent its being accessible to the fly; like some other tough kinds grown in Connecticut, and spoken of in a letter in the 10th No. of the Western Farmer and Gardener for 1845.

THE OHIO EVERBEARING RASPBERRY is earlier than most kinds. It bears its first crop most abundantly. It stands carrying to market better than the more tender sorts; and bears during the

summer on the young shoots of the present year; but more freely in the fall, until the fruit is destroyed by frost. We make these observations from our own experience of this berry, raised on our farm for several years past.

Osage Orange.—It seems the Maclura or Osage Orange, succeeds best in a rather poor soil; as, where the soil is too rich, the plants make shoots more luxuriantly than they can ripen, and the tops of the young wood are often killed by frost.

Raspberries.—Dr. Shaler, of Newport, exhibited at the Horticultural Society's room last season, some very large fine raspberries, of the Keen's Seedling, raised in his garden. The color of the fruit is, if we recollect right, arather light red. This raspberry, however, is somewhat tender, and requires a little winter protection. The Victoria is a new English seedling, of high reputation, but it has not been yet raised to any extent in this country, and therefore we cannot speak with certainty as to its suitableness for our climate. It is considered equal to the Red Antwerp in all respects, and to be everbearing, like the Ohio, producing large crops from July to December, from numerous side branches which grow from eighteen inches to two feet long. The Fastolf is another new English variety. Mr. Downing speaks of it in his new work on fruits, as the finest red raspberry known, the fruit being of the richest flavor and borne long in succession. It ripens a short time after the Ohio Everbearing, like the Red Antwerp. The largest quantities and the finest of this latter fruit—the Red Antwerp—larger than what is generally called the English Red, are raised and brought to the Cincinnati market by Mr. Latham, about four miles up the Licking river. He has about five acres of them in cultivation, and is still increasing them. He brings them in drawers, and we observe they are never mashed together.

Fine Honey.—On the 8th of July, Mr. Sanburn, the great apiarian, brought in to Huxley & Co's., about 300 lbs. of the purest virgin honey of the spring and summer's making. This amount was distributed through sixteen compartments with front glasses, each weighing ten to fifteen lbs. This, if other proof were wanting, would be sufficient to show not only the success of the plan of Mr. S.'s hives, but the value of his important discovery in his moth trap. The longer it is tried, the more certain are found its effects. Mr. S. brought in for the inspection of those interested in such things, thousands of eggs, chrysales, worms and moths, all similar to what we witnessed when we visited him, taken out of the traps, which had accumulated under two hives in the space of about fifteen days. The 300 lbs. of honey were sold in about forty-eight hours at from fifteen to twenty cents per pound.

Hovey's Seedling Strawberry is said to be, compared with the Hudson, rather soft and delicate for a market fruit. It will require, at any rate, great care. Persons whose conveyance is chiefly by water, have a considerable advantage over those who travel to market by land. It is best put into shallow drawers, as Mr. Latham, on the Licking, carries his Antwerp raspberries. These we have often seen in market as whole and fresh as the moment after being gathered from the bushes.

Pears on Quince Stocks.—In a visit to Dr. Smith's charming country seat, about three miles from the city, we had an opportunity of observing a new, and, we believe, a most valuable, and evidently successful mode of propagating pears. This is accomplished by the Dr. by budding all the varieties of pears, he may wish, on Quince stocks in the following manner. He allows his stocks to branch out for several years in all directions, without any pruning. He then inserts as many buds as the length of the branches will admit of, at distances of not more than five or six inches asunder, after which he *layers* the branches so budded; and they then take root, forming at each bud a pear tree of the different kinds inserted. Over a few feet of ground he had about 1000 of young trees, all growing finely. Dr. Smith's pomological knowledge is very considerable, and his place is covered with all sorts of fruits of all ages and sizes.

Deterioration of Fine Fruits.—In a letter to Mr. Thomas Close to the Albany Cultivator, the deterioration of some fine kinds of apples and peaches in Westchester county, New York, and other places, is attributed to the want of the necessary ingredients for fine fruit, in the soil, rather than from the incurable degeneracy of age, or from the varieties being worn out, as it is termed. The author of the communication considers that it is the soil that is worn out. This he infers from the fact that when these condemned fruits are grown in fresh and new land, they become even finer than before. The White Doyenné Pear is spoken of as one of the fruits that has suffered from a lack of proper nutritious properties in some of the old soils, but becoming fine again in virgin land. Some ferruginous compound, or slag from the iron foundry, to the roots of the trees seems to be the matter wanted for the pear; and some compound of lime, probably the phosphate, for the Newtown Pippin.

HENS, BEES, AND SILK.—In a journey of a day last summer in the vicinity of the city, we visited Mr. McHannon's farm near Reading. Mr. McH. has but seventeen acres, but we presume he makes more off these few acres than many do off of three times that number. We found everything, both in and out of doors, bearing the visible impress of skill, economy, and industry. His poultry-house is in the side of a hill, walled with stone, with an apartment above—the lower room being for a setting and feeding place. The feeding-box is so contrived that when once supplied, it does not require to be replenished for a length of time, being self-supplying. The setting-boxes are large kegs. These answer well and are easily cleansed, and at the bottom under the soft hay, is placed penyroyal to keep off the fowl-vermin. There is a long open box kept full of ashes for the hens to roll in, which is very conducive to their health. The upper room is the roosting place, in which there is a prison made of slats to confine the hens when they are not wanted to set. This imprisonment for a short time, makes them go to laying again.

Mr. McHannon defends his bees from the moth a good deal on the same principle Mr. Sanburn does, viz: he puts under each hive many small pieces of split elder, hollowed out with notches cut along the sides through which the moth can enter. These he removes in the morning, and he finds many moths sheltered in them. He also has a plate on the top of his stands with a mixture in it of sugar, vinegar, and water. He finds numbers of moths drowned or entangled in the preparation during the night. Mr. Sanburn's moth-trap appears to me to have the advantage over Mr. McHannon's in two ways—that of being less troublesome to remove and clean, and having the attraction in it of wax and bee-bread. We had the pleasure of seeing the silk-worm houses, of which Mr. McHannon has two, one which he uses for his wood-shed most of the year, and the other his shop of all-work. His second crop of worms had just finished their cocoons, of which there were about seven or eight bushels, all very fine and large. The first crop failed from the late frosts on his multicaulis foliage. Mr. McHannon has had several year's experience in raising silk. He has now hit upon an economical and successful mode of management. His plan of cleaning is simple and good. In another column will be found an account of his method from his own pen.

E. J. H.

DECIDEDLY HOGGISH.—The Wabash Express gives an account of hogs in Vermillion County, Indiana, which puts that county, in spite of its poetic name, at the head of universal swinedom. One hog weighed, *nett*, 667 lbs., a second 716 lbs., and a third 755 lbs.! There was one lot of ten hogs which averaged a fraction over 600 lbs. a-piece. If any of our subscribers in the Wabash valley, or anywhere else, have any larger animated fat-mountains than these, let them send in an account. We should like the names of these Vermillion gentlemen—(the hog-raisers, we mean, not the swine.)

PARLOR-FLOWERS IN WINTER.

The treatment of house-plants is very little understood, although the practice of keeping shrubs and flowers during the winter is almost universal. It is important that the physiological principles on which success depends should be familiarly understood; and then cultivators can apply them with success in all the varying circumstances in which they may be called to act.

Two objects are proposed in taking plants into the house,—either simple protection, or the developement of their foliage and flowers, during the winter. The same treatment will not do for both objects. Indeed the greatest number of persons of our acquaintance, treat their winter plants, from which they desire flowers, as if they only wished to preserve them till spring; and the consequence is, that they have very little enjoyment in their favorites.

Treatment of House-plants designed simply to Stand Over.

Tender roses, Azaleas, Cape Jessamines, Crape Myrtles, Oranges, Lemons, Figs, Oleanders, may be kept in a *light* cellar if frost never penetrates it.

If kept in parlors, the following are the most essential points to be observed. The thermometer should never be permitted to rise above 60° or 65°; nor at night to sink below 40°. Although plants will not be frost-bitten until the mercury falls to 32°, yet the chill of a temperature below 40° will often be as mischievous to tender plants as frost itself. Excessive heat, particularly a dry stove heat, will destroy the leaves almost as certainly as frost. We have seen plants languishing in a temperature of 70° [it often rising ten degrees higher,] while the owners wondered what could ail the plants, for they were sure that they kept the room warm enough!

Next, great care should be taken not to overwater. Plants which are not growing require *very little* water. If given, the roots become sogged, or rotten, and the whole plant is enfeebled. Water should never be suffered to stand in the saucers; nor be given, always, when the top-soil is dry. Let the earth be stirred, and when the *interior* of the ball is becoming dry, give it a co-

pious supply, let it drain through thoroughly, and turn off what falls into the saucer.

Plants designed for Winter Flowering.

It is to be remembered that the winter is, naturally, the season of *rest* for plants. All plants require to lie dormant during some portion of the year. You cannot cheat them out of it. If they are pushed the whole year they become exhausted and worthless. Here lies the most common error of plant-keepers. If you mean to have roses, blooming geraniums, &c., in winter, you must, *artificially, change their season of rest.* Plants which flower in summer must rest in winter; those which are to flower in winter must rest either in summer or autumn. It is not, usually, worth while to take into the house for flowering purposes any shrub which has been in full bloom during the summer or autumn. Select and pot the wished for flowers during summer; place them in a shaded position facing the north, give very little water, and then keep them quiet. Their energies will thus be saved for winter. When taken into the house, the four essential points of attention are light, moisture, temperature, and cleanliness.

1. *Light.* The functions of the leaves cannot be healthfully carried on without light. If there be too little, the sap is imperfectly elaborated, and returns from the leaves to the body in a crude, undigested state. The growth will be coarse, watery, and brittle; and that ripeness which must precede flowers and fruit cannot be attained. The sprawling, spindling, white-colored, long-jointed, plants, of which some persons are unwisely proud, are, often, the result of too little light and too much water. The pots should be turned around every day, unless when the light strikes down from above, or from windows on each side; otherwise, they will grow out of shape by bending toward the light.

2. *Moisture.* Different species of plants require different quantities of water. What are termed *aquatics*, of which the Calla Æthiopica, is a specimen, require great abundance of it. Yet it should be often *changed* even in the case of aquatics. But roses, geraniums, &c., and the common house plants require the soil to be *moist*, rather than *wet*. As a general rule it may be said that every pot should have one-sixth part of its depth filled with coarse pebbles, as a drainage, before the plants are potted. This gives all superfluous moisture a free passage out. Plants should be watered by *examination* and not by *time*. They require various quantities of moisture, according to their activity, and the period of their growth. Let the earth be well stirred, and if it is becoming dry on the inside, give water. Never water by *dribblets*—a spoonful to-day, another to-morrow. In this way the outside will become bound, and the inside remain dry. Give a copious watering, so that the whole ball shall be soaked; then let it drain off, and that which comes into the saucer be poured off. But, in whatever way one prefers to give water, the thing to be gained is, a full supply of moisture to every part of the roots, and yet not so much as to have it *stand* about them. Manure-water may be employed with great benefit every second or third watering. For this purpose we have never found anything of value equal to *guano*. Besides water to the root, plants are almost as much benefitted by water on the leaf—but of this we shall speak under the head of *cleanliness*.

3. *Temperature.* Sudden and violent *changes* of temperature are almost as trying to plants as to animals and men. At the same time, a moderate change of temperature is very desirable. Thus, in nature, there is a marked and uniform variation at night from the temperature of the day. At night, the room should be gradually lowered in temperature to from 45° to 50°; while through the day it ranges from 55° to 70°. Too much, and too sudden heat will destroy tender leaves almost as surely as frost. It should also be remembered that the leaves of plants are constantly exhaling moisture during the day. If in too warm an atmosphere, or in one which is too dry, this perspiration becomes excessive and weakens the plant. If the room be stove-heated, a basin of water should be put on the stove to supply moisture to the air by evaporation. Sprinkling the leaves, a kind of artificial dew, is also beneficial, on this account. The air should be changed as often as possible. Every warm and sunny day should be improved to let in fresh air upon these vegetable breathers.

4. *Cleanliness.* This is an important element of health as well as of beauty. *Animal uncleanliness* is first to be removed. If ground-worms have been incorporated with the dirt, give a dose or two of lime-water to the soil. Next aphides or green-lice will appear upon the leaves and stems. Tobacco smoke will soon stupefy them and cause them to tumble upon the shelves or surface of the soil, whence they are to be carefully brushed, or crushed. If one has but a few plants, put them in a group on the floor; put four chairs around them and cover with an old blanket, forming a sort of tent. Set a dish of coals within, and throw on a handful of tobacco leaves. Fifteen minutes smoking will destroy any decent aphis.

If a larger collection is on hand, let the dish or dishes be placed under the stands. When the destruction is completed, let the parlor be well ven-

tilated, unless, fair lady, you have an inveterate smoker for a husband; in which case you may have become used to the nuisance.

The insects which infest large collections in green-houses, are fully treated of in horticultural books of directions.

Dust will settle every day upon the leaves, and choke up the perspiring pores. The leaves should be kept free by gentle wiping, or by washing.

FARMERS' AND GARDENERS' LIBRARY--No. 2.
Books of Horticulture.

In our first number we gave a list of books, suitable for a farmer's library, descriptive of animals. We proceed to give a list of such as are proper to the gardener.

9. LINDLEY'S THEORY OF HORTICULTURE.—The American edition of this work has been edited by A. J. Downing and Dr. Gray. It is unquestionably the best work upon the *principles* of culture, which has ever appeared in the English language; and were we a teacher of young gardeners, or young nurserymen, we should make them learn it by heart as the alphabet of their profession. We have gained more advantage from it than from any other single book, on this subject, in the language.

10. LOUDON'S ENCYCLOPEDIA OF GARDENING.—This is indeed a sphere of information. The price is ten dollars. But all who mean to make gardening a business, commercially, or as amateurs, cannot *afford* to be without it. There is not, in any language, it is supposed, the same amount of practical information. The quantity is enormous. The history of gardening, ancient and modern, an elaborate exposition of the science, and of the art of gardening, admirable monographs, or special and separate treatises upon the whole culture of each flower, fruit, or vegetable found in the costliest gardens, the structure and management of all manner of frames, cold-houses, hot-houses, green-houses, and conservatories; in short whatever had been known, to the date of the last edition, of garden-culture, is included in this Encyclodedia.

11. FESSENDEN'S NEW AMERICAN GARDENER.—This is a work compiled, by a practiced hand, from the above. For common gardeners, for those who cultivate but a few things in a garden and wish to incur but very little expense, and who require a few and simple directions, this manual is decidedly the best that we know of. It should not cost more than a dollar, or a dollar and a quarter.

12. AMERICAN FLOWER GARDEN DIRECTORY, *by Messrs Hibbert and Buist, Philadelphia.*—This is an excellent work in many respects; and desirable for all amateur florists. It is a journal of the operations proper for flowers in the *parlor*, the *green-house*, and the *garden*, for every month in the year. For all those who, every month, pursue a regular course nearly similar to the one it indicates, this arrangement is valuable. But by far the greatest number of persons do no such thing. The consequence is, that for a book that we cannot get along without, it is one of the most inconvenient that we ever handled. Thus, for instance, the whole cultivation of any particular flower cannot be found in any one place; but must be searched for, fragment by fragment, through the departments allotted to each month of the year.

The inconvenience of this straggling arrangement would have been materially diminished if the scattered members of each subject had been grouped, under their appropriate heads, in a copious index. Instead of this, the index is an ingenious contrivance to keep a man hunting with a certainty of finding nothing. And, like many other indexes, it would lead one to think that some literary sheriff had laid a distress-warrant upon it, and sold off all its valuable articles. Nevertheless the book is valuable because it contains much important information, hardly to be found elsewhere, respecting the cultivation of home and foreign plants in the latitude and climate of the middle States. Price $1.50.

13. LADIES COMPANION TO THE FLOWER GARDEN. If our readers can have but *one* book on flowers, this is the one. It is by a lady—Mrs. Loudon, wife of the celebrated J. C. Loudon, whose Encyclopedia we have noticed. Its arrangement is admirable; it is very copious, condensed and accurate. Very simple and popular in style, every direction is based on scientific principles. It is the best *manual* for flowers that has ever met our eye. It costs $1.50.

14. BUIST ON THE ROSE.—This is a recent work devoted entirely to the culture of this queen of flowers. We know of nothing better. Indeed it is the only American work which pretends to be a rose manual. In France, and in England, the most splendid works have been issued upon this favorite flower. But they can neither be afforded, nor easily obtained, by florists in America.

Besides these books, we can recommend to our readers, for floral purposes, the back volumes, and current numbers of Hovey's Horticultural Magazine. Although it is somewhat formal, and magazine*ish*, it is very valuable, and we should be glad to see it circulated at the west.—We shall devote a separate, and more elaborate chapter to pomological works.

CRAZY FARMING.—In an account of a visit to the Massachusetts Insane Retreat at Worcester,

the editor of the American Agriculturist gives an account of the farm tilled by the patients. It seems that one man desired to have a field exclusively under his own management. The good Doctor consented, and gave him a field in the rear of the buildings. It was in grass, with a sloping surface. The man constructed little *ponds* near the sides, into which he drained water from the roof, and urine from the water-closets; when it was well mixed, the grounds were thoroughly irrigated by it. Now for the result. "The field yielded six cuttings of grass, of about one ton each per acre, during the first season." When this crazy farmer is no longer needed at the Asylum, we think he could find good employment in teaching many sane and sober farmers; whose farms are a good deal crazier than this man's brains.

ELECTRO-CULTURE.

About a year ago, all the world was a-gog about electricity applied to vegetation. Sanguine persons grew red in the face with excitement, and enterprising schemers hoped to supercede all past processes of culture by this magical fluid. Things were to be made to grow not only as fast as lightning, but *by* lightning. Those mischievous bolts which had played their dangerous pranks with chimneys, oaks, and towers, were to be regularly harnessed and sent to work in the field like horses or oxen. Many of our readers will recollect how widely the agricultural papers copied the glowing accounts brought from over the seas; and no body was afraid of anything except of not believing enough.

Well, the lightning has been too smart for them; and the whole pack which opened loud on the scent, are now heard just as loud on the back track. It usually takes too foolings to satisfy the public. They first swing to an extreme folly of injudicious admiration, and then vibrate to the opposite extreme of disgust. Every body was fever-hot with morus multicaulis; and then they went into chills about it. Durham stock brought almost their weight in silver at one time, and then could hardly be sold at butchers' prices. Berkshire hogs were all the rage, and now are in great and unmerited contempt. The guano fever sent hundreds of ships a-dung-hunting all over the earth; and lucky were they who espied a precious heap of excrement. How little did the penguins and seagulls of the Pacific imagine, that their unconscious observance of the laws of nature was one day to figure so largely on the British Exchange, and to raise such a bustle in chemical laboratories!

We published but few of these accounts of electricity, because we perceived nothing which could be regarded as settled. And now, we are far from sympathising with the recantations and apostacies from the electric faith. Like all other things driven to extremes we shall, by and by, see it settle upon a middle point. The results will be less than, a year ago, were gloriously predicted; and more than sombre disappointments now dismally croak.

Editors are not without blame for these actions and re-actions. Many of our best agricultural papers are connected with agricultural warehouses, which deal largely in all articles for which there is an agricultural demand. Without the slightest intention of deception, nay, with a desire to act cautiously, such pecuniary interest, may insensibly affect the judgment of sanguine editors. But the wish to issue a spicy paper, full of life and surprise, inclines an editor to publish whatever is new, without a scrutiny of its truth. With a few honorable exceptions of standard periodicals, we scarcely take an agricultural paper, which does not contain most absurd stories gravely indited without a word of comment. Now, it seems to us that agricultural papers ought not to be common sewers of news, full of waste and refuse matter; but registers of rigid facts, and scientific expositors of the principles deducible from facts. Farmers are at fault also in the matter. An editor who depends for his support upon the proceeds of his paper, must be a man of rare independence if he can shield himself from the selfish influence of those who are his best supporters. Men that have a novelty, a new and precious jewel of a flower, a heavy stock of nursery commodities, or large herds of fancy stock, sheep, or swine, can afford to circulate widely and praise, any paper that will circulate widely and praise their special interest. A sanguine editor inditing an eulogistic article, with a red-hot speculator whispering at each ear, will be very likely to lead many simple farmers astray. Such articles, copied by newspapers, spread the infection beyond the circle of subscribers. Farmers that take, and farmers that do not take the paper, will be deceived.

Now, let husbandmen give to their agricultural papers such a support as shall leave the editors free from temptations to listen to interested persons; let them contribute so freely of their observations that editors will not have to draw upon their imagination for facts, and the agricultural press will become sober, stable, accurate, and so, profitable.

Warts on a Cow's Udder.—Muriate of Ammonia (sal ammoniac,) 2 drachms, powdered savin 1 ounce, lard 1½ ounces,—rubbed well together, and applied daily to the warts, is said to have been

an efficient remedy. If the cow is not in milk, and the warts are large, they may be removed by operation, either with the knife or cautery.–*Cult.*

SINGLE-CROP FARMING.

It is extensively the practice of large farmers, to put their whole force upon one staple article; a style of farming as full of risk, as it would be to invest a whole fortune in one kind of property. At the south we have cotton plantations; nothing but cotton is raised. If the market and the season happen to be propitious, enormous profits are made. If markets, or the planting or picking season are adverse, the year is lost; for it was staked on one article; all the risks of the year, instead of being distributed, were concentrated. Another plantation cultivates sugar exclusively; and the ambitious planter has his pockets full or empty, according to chances which he can not foresee, calculate, or overrule.

At the north, some farmers put in nothing but wheat: others nothing but corn. One relies on the hay crop; another makes or loses a year's profits on cattle. In each case, if the staple raised happens to *hit*, in every respect, profits roll in like a flood. But such operations leave no margin for those casualties, and annual changes, which are inevitable.

Ireland, relying upon the potato as a support for a large mass of its poverty-stricken people, is visited with famine if, as in this year, this crop is shaken. The failure of the grain crop, in England, strikes panic into the whole nation.

A perfect system of agriculture should have in itself, a balancing power. There should be such a distribution of crops that a farmer may have four or five chances instead of one. To-be-sure, a farmer cannot drive so large a business,—cut such a swath—where five small or moderate operations take the place of a single great one. Five years of moderate profits are better than one gaining year, and four years to eat it up. A farmer has 160 acres—sixty are in wood: of the one hundred cleared acres, say *twenty* are used for home lots, pasture, corn, &c., and *eighty* are in wheat. The fall may be bad for planting, the spring may be bad, the fly may take the crop, or the rust may strike it; escaping all these, the weevil may damage it; and, after all this, it may not bring a justifying price when got to market. Is it wise for a man to put his yearly support or gains upon one crop, and that one crop depending upon six or seven contingencies? If, as in the present year, there is a large crop *and* high prices, he makes largely. Eighty acres at thirty bushels the acre yields 2400 bushels, worth, say, seventy cents, or $1680 gross receipts. Elated beyond measure, the lucky fellow, buys some forty acres more of cleared land, reduces his pasture, shaves off a portion from his meadow, plants a few acres only of corn, and puts every inch he can command into wheat; a good operation if he can find guarantee for as good seasons and as good a market as before. But there are at least ten chances against, for one in favor.

A farm which depends for its profit on butter, cheese, fruit, timber, cattle, hogs, corn, wheat, potatoes, flax, &c., makes, perhaps, but a little on each crop; but the rains that come in *drops* are useful, while those that come in *torrents* and raise freshets, leave great mischief behind.

IMPROVED BREEDS OF HOGS AND CATTLE.

No farmer ever owns a fine animal without being proud of it. Yet, the same man will have an inveterate prejudice against what are called improved breeds. The "fancy" prices which have been extravagantly paid, the miserable failure which some have made in attempting to stock their farm with foreign breeds, together with a suspicion of whatever is new, and a lack of enterprise, have deterred many farmers from seeking a better stock than the common run. It is in this way that speculators, besides ruining themselves, which is of no great consequence, seriously retard the progress of enlightened husbandry.

Let us take a plain and practical view of the matter.

1. Every man who has had anything to do with cattle, horses, and swine, knows very well what a difference there is between different animals, in respect to size, form, and aptitude to fatten. Among twenty steers there will be a few, that without any reason that the owner can see, outgrow and out-fatten all the rest. A lot of fifty hogs gathered up from one neighborhood, will naturally divide itself into three sorts, those which fatten with remarkable rapidity and on little food; those that eat voraciously without taking on fat; and those that lie between these two extremes and are not remarkable in one way or the other. Every man that buys a horse knows, that some horses require as much again food as others to keep them fat.

2. It is equally true that these qualities can be transmitted, by careful breeding, from parent to offspring; until the qualities become *fixed* in the breed. A particular *strain of blood*, is then said to be established. By this process, English breeders of stock, with the greatest perseverance and with admirable skill have established several truly improved breeds. It is not mere beauty of form that has been gained, although this has been eminently

attained; but also all those qualities which make an ox valuable for the *yoke* or for the *knife*; all that makes a cow good at the pail and afterwards for the butcher; all that makes a hog valuable in flesh and fat. It is a mistake to suppose that the improved breeds have been formed to please gentlemen farmers and amateur fanciers. They have been perfected with an eye mainly to their *profitableness* to the farmer—the real farmer. Nor are they the stock for large farmers and rich proprietors alone. They are more peculiarly suited to farmers of small or moderate means than to any other; a rich farmer can afford to keep poor stock, if any body can; but a small farmer is badly off indeed, if the little that he has is poor.

3. No class of farmers are more interested in having good stock of all kinds than western farmers. Pork and beef constitute, probably, three-fifths of their exports. It is of the last importance that we should possess animals from which can be made the utmost profit. It is as much more profitable for an Indiana farmer to drive the very best cattle, as it is for a Massachusetts farmer. If improved breeds are found on the Mohawk to be vastly more profitable than common stock, they will be found to be just the same on the Wabash.

It does not follow either, that because we have more corn than we can feed, or more grass and hay than can be used, that we can make up for inferior quality by the greater quantity of cattle kept. *We* may winter a hundred head of cattle without positive loss, when a New York farmer would sink money by it. But that is not the question. Suppose two herds, of a hundred each, of four year olds, preparing for the shambles. They eat the same amount of grain, and hay or grass. But when weighing-time comes, one herd averages a fourth heavier than the other, and this is clear profit. With no more food, and no more labor, and no longer time in fattening, they yield the owner a fourth more profit.

Three men start a hundred hogs a-piece for market. As corn is a drug, we will say nothing about the expense of feeding! The first lot is of the true land-shark breed, and will average, say, one hundred and twenty-five pounds; the second lot are of a better breed, and average two hundred pounds; the third hundred are of a choice breed and average three hundred pounds. If the market happen to be heavy, the first lot can hardly be sold; the second lot sells moderately well, the third lot goes promptly and at a shade higher price. Now what is the difference of profit? If pork is selling for two dollars the hundred, the first hundred hogs bring two hundred and fifty dollars. The second, four hundred dollars; and the third, six hundred dollars. That is, a difference of breeds makes a difference in profit, feeding and labor being the same in both cases, between the first and last lot, of three hundred and fifty dollars. But it will be more than this, for hogs averaging three hundred pounds will command twenty-five cents in the hundred more than those weighing a hundred and twenty-five pounds. The price which a farmer will get, then, for his hundred acres of corn, depends upon what his hogs can do for him. One sort of hogs can make up a fourth more fat than others, and another can make up still a fourth more than these. If you owned a mill, which of two millers would you choose—the one who could make forty pounds of flour to the bushel, or the one who could make forty-five—the quality being equally good? Of two acres of land, which would you choose—the one which would yield fifteen bushels of wheat, or the one which, with the same cultivation, would yield thirty? Our farmers are willing enough to hunt for good lands; but why, on the same reasons, should they not hunt for the best breeds of cows, cattle, hogs, and horses?

4. As to the different varieties which are cried up, we have no interest in urging one more than another upon the public. It is all one to us whether Hereford, Devon, or Durham prevail; Woburn, Byfield or Berkshire. All that we ask is that farmers should aim to procure *the best*. Their own experience must determine which that is. One kind will suit one range of land better than another. Beginning with moderation, a shrewd farmer will soon be able to tell whether any particular breed will suit his farm.

We presume that all farmers work for the sake of profit: we urge an improvement of stock simply on the ground of its *profitableness*.

MORE SHIFTLESS TRICKS.

We gave, not long since, a chapter of "Shiftless tricks;" and have heard that some of our fair readers have cut it out, posted it up in the kitchen, and intend reading it to every one who presides there.

Another chapter, it has been suggested, might be filled with tricks of the masculine gender.

Tobacco Tricks.—It is a filthy trick to use it at all; and it puts an end to all our affected squeamishness at the Chinese taste, in eating rats, cats, and birds' nests. It is a filthy trick to let the exquisite juice of tobacco trickle down the corners of one's mouth; or lie in splashes on one's coat, or bosom; to squirt the juice all over a clean floor, or upon a carpet, or baptismally to sprinkle a proud

pair of andirons — the refulgent glory of the much-scouring housewife. It is a vile economy to lay up for re-mastication a half-chewed cud; to pocket a half-smoked cigar; and, finally to be-drench one's self with tobacco juice, to so be-smoke one's clothes that a man can be scented as far off as a whale-ship can be smelt at sea.

It is a shiftless trick to snuff a candle with your fingers, or your wife's best scissors, to throw the snuff on the carpet, or on the polished floor, and then to extinguish it by treading on it!

To borrow a choice book; to read it with unwashed hands, that have been used in the charcoal bin, and finally to return it daubed on every leaf with nose-bleed spots, tobacco spatter, and dirty finger-marks — this is a vile trick!

It is not altogether cleanly to use one's knife to scrape boots, to cut harness, to skin cats, to cut tobacco, and then to cut apples which other people are to eat.

It is an unthrifty trick to bring in eggs from the barn in one's coat pocket, and then to sit down on them.

It is a filthy trick to borrow or lend for others' use, a tooth-brush, or a tooth-pick; to pick one's teeth at table with a fork, or a jack-knife; to put your hat upon the dinner table among the dishes; to spit generously into the fire, or at it, while the hearth is covered with food set to warm; for some times a man hits what he don't aim at.

It is an unmannerly trick to neglect the scraper outside the door, but to be scrupulous in cleaning your feet after you get inside, on the carpet, rug, or andirons; to bring your drenched umbrella into the entry where a black puddle may leave to the housewife melancholy evidence that you have been there.

It is soul-trying for a neat dairywoman to see her 'man' watering the horse out of her milk bucket; or filtering horse-medicine through her milk-strainer; or feeding his hogs with her water-pail; or, after barn-work, to set the well-bucket outside the curb and wash his hands out of it.

ABSORBENT QUALITIES OF FLOUR.

It has long been known that flour gains in weight on being made up into bread. The English act of Parliament allowed 280 lbs. (a sack) of flour to make 320 lbs. of bread. But in fact it makes a much greater weight than this. The average per cent. of water, in English flour, naturally, according to Johnston, is 15 per cent. But good English and French wheat bread, according to the same author, contains 44 per cent. of water; i. e. twenty-eight pounds are absorbed in making. By this estimate, 280 lbs. would gain nearly *seventy-four pounds*, while the act of Parliament allows only *forty pounds*.

It is understood that American wheat absorbs more water than English; and that United States southern wheat, absorbs more than northern. It is also true that good wheat gains more in baking than poor wheat, and old flour, more than new. It is not good *because* it takes up water; but good flour has that property, and poor has not; and absorption is, therefore, an evidence of quality.

This absorption of water is in part mechanical and in part chemical. The difference between these, may be illustrated; a bushel measure of shelled corn will admit a great quantity of water into its open spaces; it stands *between* the kernels. When water is thrown upon lime, it does not exist *between* the particles, but *combines* with them. Flour absorbs water in both ways.

Absorption, mechanically, depends upon the coarseness of flour, either from the character of its growth, or from the manner of its grinding. The want of light and heat, in unfavorable climates, or in bad seasons, induces sluggish and imperfect action. The juices are but partially digested and assimilated. Many vegetable constituents exist, in consequence, in smaller quantities, or in a crude state. In such cases the texture is porous and spongy. Grinding breaks down the organized form without altering the essential nature of the texture.

It would seem, if this be true, that grain ripened under unfavorable influences would absorb *less* rather than *more* water, since the watery particles, from the want of rapid digestion and excretion, remain in the grain. But, after grain is cut, and put to dry, a litteral evaporation takes place; the water is, in a measure, exhaled.

We are not to suppose that a mechanical absorption predominates. By far the greatest proportion of water is supposed to *combine* with the ingredients of the flour — starch, gluten, &c., — chemically. And as flour is rich in starch and gluten, it will have the power of taking water into combination. It has been supposed that the absorbing power of flour depended mainly upon its gluten. But Johnson holds the position in doubt. Whereas, Webster (of England) states that it is with the starch, principally, that water combines. The per cent. of starch, sugar, and gluten, &c., in wheat, depends on the soil and climate; — on the soil, because it must derive from it, originally, the elements of its existence; on climate, because these elements require a certain temperature, and quantity of light for their perfect elaboration. It is on this account, that the wheat of southern Europe is better than that of England; that, that of

INDIANA STATE LIBRARY

Egypt is superior to the Italian. In each case there is a superiority of climate which produces the most perfect elaboration of all the elements of wheat.

HAY---BENEFITS OF SCARCITY.

Some of largest hay-raisers in this county have told us, that they did not cut more than one half the ordinary crop to the acre, and that the hay in bulk was, at least, a fourth part lighter than it was last year. If, then, a farmer would make as much on his hay as he did last year, he must either sell two tons for one, or must sell each ton at double the price of last year. But the crop has fallen off in quantity so that he cannot sell even *as* much as last year, and there is no prospect of gaining ten dollars a ton, against five dollars of last year. Those who buy hay in towns and cities grumble at a farmer for asking six, seven, or eight dollars (and a price proportionably greater in cities) as if he was taking advantage of a scarcity to make a good deal of money. Whereas, at even eight dollars, the farmer will not make this year as much money as the last, when he sold at five dollars the ton.

If carelessness, and squandering habits could be taught by anything, occasional scarcity would add positively to the wealth of a community. Where a farmer has more grain and hay than he can possibly feed out, what motive is there to economy? But let a year of want come, and, perhaps for the first time in his life he begins to contrive, and economise. Only a day or two since we heard a farmer's boy saying, "We have eighty tons of hay for *sale*, and our cattle have not eat a mouthful of hay yet." "What have they fed on?" "Oh we cut up straw, and cornstalks and blades, and mix in some meal." Thus, the prospect of a higher price for his hay, set this young farmer to contriving how to keep his own stock fat, and yet have all his hay for sale. But, perhaps, next year will see a full crop, and low price, and this now contriving farmer will quit feeding stalks and cut and mixed straw, meal, &c., He will be foolish if he does. If hay only brought *three*, instead of *five* dollars, it would be good thrift to save and sell rather than feed it out, *if* you can, by a little contrivance, feed out things which would otherwise be clear waste. No farmer should sell that which is needed by the family, by the stock, or by the soil. But, with these exceptions, the more one can sell, the better; the more one can save, the more he will have to sell; and the more economy and skill one employs, the more he will save.

Wool.—The quantity of this invaluable material, sent from the west, through Buffalo and Pittsburgh, this year, exceeds *seven million pounds*.

COMMUNICATIONS.

THE FLOWER GARDEN FOR JANUARY.

We are now entering the confines of another year, and it is to be hoped the weather will prove more congenial to plants in this department than the past. In taking a retrospective view of the past season, there was but little to encourage the amateur in his anticipation and labor. The early part was cold and dry, and a deleterious atmosphere prevailed, destructive to seeds as well as shrubs, causing much unpleasant feeling against *seedsmen* and *nurserymen*, when neither were to blame. In sowing seeds, many are lost under the supposition that copious watering will make them germinate sooner. It is as well, when first sown, to give a gentle watering, to prevent the soil and seed being separated by the wind. It will happen that seed will sometimes be old; when that is the case, they will be longer in germinating; and if over watered it will rot them. Much depends on judicious management, as the unfavorable weather cannot be always guarded against, however experienced the amateur may be. It is the interest of nurserymen to sell good healthy trees and shrubs, and this is all that can be required of them; if the weather, like the past season, proves unfavorable to their growth, it would be a hard case indeed to expect nurserymen to be compelled to replace all that failed through a circumstance over which no person has any control. Bulbous roots planted in the fall, did no better in the spring than plants put out in February, owing to the same state of the weather.

From the intense cold prevailing last month, the ground *now* is in such a state that it would be advisable not to plant trees or shrubs, it being impossible for them to strike root; neither would it answer to plant any more bulbous roots this season, as all would rot for want of warmth. The only thing that can be done, is to scatter manure over the beds, and turn them over when the weather will permit. Examine your Dahlia roots, and if mouldy dry them in the sun; if any are rotting, cut the part off that is affected, then repack them.

The Parlor.

Great caution is required in watering plants during the present month. Give to none but those in a growing state, and then in small quantities. You will find it better to give little and often than lose your plants. The Camellia is a plant that thrives best when its leaves are kept clean, and at this season will require a good supply of water, or its flower buds will not swell and expand well. In washing the leaves, never let the water touch the flower, or you will destroy its beauty. Chinese Primroses should be shifted into a pot one size larger, and be abundantly supplied with water, and their flowers will expand to perfection.—Azalias should be kept near the window to induce them to grow; water them sparingly at first. Hyacinths and other bulbs in glasses, need attention to guard them against frost; change the water when necessary. Cacti are now in a state of rest, and will require no water. Geraniums, the last of this month, will need re-potting, and should be watered sparingly. Gladiolus Cardinalis should be potted the last of the month. Keep the pots clean and free from dead leaves, both for the sake of neatness and health. T. WINTER.

MANAGEMENT OF A COCOONERY.

MACKSHILL COCOONERY, near Reading, Hamilton Co., Ohio, Nov. 17, '45.

E. J. HOOPER.—*Dear Sir:*

Agreeably to your request, I will give my mode of silk-growing. I have been feeding, for the last six years, with varied success. I have tried a number of plans, and find the more simple the plan the better. I use Morris' Burlington frame, and think it decidedly the best I have seen or tried. First, have good eggs, well kept, and do not let them hatch till warm weather has fairly set in—say from 10th to 25th of May, as the season may be. As soon as they are hatched, lay on leaves and move them on to clean papers by lifting the leaves. Be careful not to get them too thick, or you cannot feed them enough without covering them too deep with leaves. Move and spread them every day, except when they are moulting. Feed often with fresh leaves; give them all the air you can, so that they do not blow away. After the first moulting, feed with short, tender twigs. They are easily moved and spread with the twigs in the morning when they are hungry. If they aro neglected while young, it is useless to feed them when they are old. I believe that all the diseases I have had among my worms were caused by neglect; or by keeping them in a close building where there was not enough pure air. After they pass the second moulting, if they are fed with care, they will eat the leaves so clean that they will need to be moved but once between each moulting; and that should be done just before they moult; but should their bed become foul, move them by all means.

I keep each day's hatching separate. The first day but few worms will hatch, and they serve as a guide for all the rest. When they commence moulting, you can move the others on clean papers before they commence moulting. If the worms are well fed, and not too thick on the papers, and the weather warm, they will moult nearly at the same time,—that is, each day's hatching, and when they are kept separate, and the papers marked 1st, 2d, and 3d day, &c., you can feed them as they ought to be fed, and when they commence winding you can put up the bushes for them to wind in, as each lot commences. They will not all need them at once as they would if all ages were mixed. When all the frames commence winding at once, they cannot be attended to in time, and many worms will be lost if there is no place provided for them. They will crawl over the frames and waste their silk; even if they make a cocoon it will be of but little value.

After the third moulting, feed with branches as long as they will lay on the frames. Keep the bed as even as possible. Let no leaves hang over the frame, lest some of the worms crawl out on them; others will eat them off, and leaves and worms will fall together to the ground.

When the worms get too large to lift with the branches, and they want moving, I place five strips three-eights or one-half inch square across the frames (the frames are three by four feet) the strips are three feet four inches long. So as to extend two inches over the frame on each side. Sift lime over the whole bed till it is all white, worms and all; then lay branches lengthwise of the frame across the five strips. After feeding a few times the worms will all be on a new bed; they will not stay among the lime in the old bed. They are then ready to move.

Have a few duplicate frames ready; lay two sheets of heavy brown paper that will cover the frame; if you could get one large enough to cover the frame it would be better. Give the worms a good feed, and as soon as they come upon the upper bed, place two strips four feet long under the ends of the five cross-strips. Two persons can then raise the worms up while the third person slips the frame and old bed out, and places one of the duplicates in its place. The worms can then be let down, and they will keep eating as if nothing had happened. If it becomes necessary to move them suddenly, have four or five sharp pointed sticks, slip them through the bed of branches just below the worms; then proceed as before. Pick off what few worms remain on the frame; throw off the litter, and the frame is ready for the next move. They should be moved just before the bushes are put up for them to wind in, and give them a good coat of lime; it keeps the bed from moulding, and they will not wind in it; for, the cocoons that are made in their bed, if it is damp weather, are poor things. Cane brush is the best for them to wind in. When that cannot be had, cut oak limbs, lay them in the sun to wilt. If they are put up green and the worm commences winding in them the leaves curl and the worm has to leave its place to find a better; and it will seldom begin again. Cut the brush of the right length to spring in between the frames. The frames should be eighteen inches apart; three tier, one above the other; the lower one, two feet from the ground. When feeding, after the brush are put up, lay the but end of the multicaulis branches (nothing else is worth feeding with) snug to the oak bushes that the worms can get to them when they want to wind. After most of the worms on a frame are gone up, pick off the rest and mark the frame; in four days gather the cocoons, if the weather is warm; if not, in six days. Having the oldest worms in the upper tier, you can take them down without disturbing the rest.

After the cocoons are gathered, I select the best for seed. When the millers come out, I throw all the poor ones out, if there is any. The papers intended for the eggs, are hung up to keep them clean, and there will be nothing on them but the eggs. I have a few ounces of eggs from the cocoons you saw in the bushes when you were here. They are as good as I ever saw. I propose leaving some with you for sale this winter. They are the nankeen-peanut. To keep eggs from hatching in summer, roll the papers in cotton batting, place them in a tin can, not air tight, rap it in batting, put it in a wooden box and place it in an ice-house on the ice, cover it with straw, and they will keep well. The cocoons intended for reeling, are put in the sun as soon as they are gathered: spread them thin, and a few days will kill the crysalis. They must be well dried or they will mould. The pea-nut being much firmer and heavier, takes longer to kill and dry than any other variety.

To sum up the whole: have good, well-kept eggs; give them plenty of room (an ounce of eggs when the worms are full-grown, should have twenty-five frames, three by four feet, to feed and

wind on.) This is very essential. Keep them clean; feed in an open building; close it only when it is very windy. Cultivate your *trees* well; if they are not thrifty the worms will not be; yellow leaves will not do. Feed the worms all they will eat from the start. I feed the leaves wet or dry as they come. It is better to have them leave some, than not have enough. Have a good place for them to wind in; and if the weather is warm and uniform, the worms will do *their* part. If any are diseased, pick them off. I am frequently asked: "*is it profitable?*" My answer is, it will pay as well as any other farm operation. Should you, or any other person, want any further information I possess on the subject, I shall be happy to communicate it.

Enclosed I send you the names of twelve subscribers, and wish it was double that number. I am anxious to see the Farmer and Gardener make its appearance. No man that takes an interest in agriculture or horticulture, should be without it.

Wishing you success, I remain yours,

JOSEPH McHANNON.

Dr. Plummer's reviews are not a mere run of cheap, flash-sentences of approval or dislike. His plan is both novel and admirable. Taking our last volume, he passes from page to page, taking up the various subjects by way of *text*, and illustrating them with a great amount of additional and highly instructive matter.—*Ed.*

REVIEW OF VOLUME ONE, NO. 2.

Why did "R" stop at "No. 1" on Bees and Beehives? He talks knowingly enough to have given us many other numbers on the subject. Perhaps some of the young readers of this paper have been raised from infancy by the side of a beehive: how many of the following pertinent questions can they answer?

1. What is bee-bread composed of?
2. In case of a deficiency, is there any artificial substitute for it?
3. To what diseases are bees subject?
4. Why should apiarians preserve as many tulip-trees as possible on their lands?
5. Of what use are the little pockets in the bees' thighs?
6. What is propolis, and the use of it?
7. Why is the proximity of poplars and willows desirable?
8. Why should a hive be closely fitted together?
9. What wonderful provision is made for the loss of the queen-bees?
10. What is there remarkable in the structure of the cells?
11. What is done by the bees when the comb is likely to fall by its too great weight?
12. What disease is produced sometimes, by the practice of closing the hive in winter?
13. How do bees ventilate their hives? And what is the common temperature of the hive?
14. When are the drones killed?

And they may attempt to answer as many other questions as their curiosity may have excited in their minds.

Potato Crop, p. 52.—Have our farmers tried any of the modes of cultivation here proposed? Woodward's practice of covering the dropped potato with straw five or six inches deep, has been repeated by others; and commended as a means of effectually suppressing weeds, keeping the ground moist, level, and in good condition, &c. The straw may be turned aside or parted, during the season, and the largest potatoes be selected for use without disturbing the rest which grow on the same roots. Perhaps the editor will consider it worth while to *detail* the method, for the benefit of such readers as have not heard of it. In all the numerous experiments in the cultivation of potatoes, I have remarked that the *great* crops are invariably preceded by a big dinner of manure, either alone, or in some sort of a compost; and I suspect that when the potato has a loose, moist soil and plenty to eat, it will fatten and multiply under any reasonable tillage. It appears to me that results of unnumbered trials in all parts of the country with cut, uncut, large, medium, and small potatoes, and with potato parings, prove that there is little choice in the manner of preparing the tuber for the ground. One man makes a comparative experiment with cut and uncut potatoes; he finds the cut potatoes the most productive. Another similar experiment, in the hands of a second person, reverses the result; and so with the large and small potatoes: so that I conclude, a sufficient number of good, sound "eyes," with meat enough attached to them to start upon, is the chief point to be secured. All potatoes, even of the same variety, are not alike palatable: have our farmers learned that manure containing much ammonia, makes potatoes *soapy*, and that vegetable mold makes them *mealy?*

Peach Trees, p. 56.—Here we are advised, or at least permitted, to turn our hogs and sheep into our peach-orchards: others as strenuously urge us to keep out every hoof. Now as no man can serve two masters, it behooves us to ascertain who is the legitimate teacher, and to obey him. I have rarely seen cattle kept in an orchard, without serious damage being done to the trees, and indeed some of the trees being destroyed by them. And as for the hogs, unless they are deprived of the use of their snouts, they will soon make the whole surface of the orchard, like the surface of a rasp enormously magnified, nothing but pits and ridges, which might do very well to drag a loaded churn over, in a cart, to agitate the cream; or in wet weather to make mud-puddles for the pigs to carouse in. These animals are so skillful in excavating the earth, that I am half-inclined to enquire whether their disposition this way, might not be turned to good account in digging post-holes.

Spring-work on the Farm, p. 56, &c.—Let us mark these pages for reperusal in their proper season, that their hints may not be lost. A valuable hint, is as good as money lent without interest; and when pay-day comes (and the fields are pretty sure pay) the money goes into the hint-borrower's pocket.

Quantity of Seed, p. 57.—Thick sowing speedily covers the soil with a coat of grass, and this keeps the ground better sheltered from the inclemencies of winter than a thin coat: abundance of seed sown also multiplies the chances of securing an ultimate supply of roots. Beside these advantages, I think there is none other due to a copious seeding; and I perceive some late English authorities recommend a reduction of English quanti-

ties. On trial, three pecks of wheat were found to yield four times as much per aker, as the average of American crops. In the United States, seventy-seven bushels of oats have been raised from three sown, seventy-five bushels from four sown; and the wheat crops of several cultivators, bear the following proportions to the seeding:

24 to 48 bushels	from	1¼	to 2 bushels sown.
52 b. 8 qts.	"	1¾	"
36 b.	"	1½	"
44 b.	"	1⅝	"
26 b.	"	1	"
29 b.	"	1	"
42 b.	"	1⅛	"
41 b.	"	1⅛	"
40 b.	"	1⅞	"

In determining the proper quantity of seed for an aker, we should consider the *quality* of the soil, its *physical condition*, (moisture, porousness, &c.,) the *variety of wheat* to be sown, and the *manner of putting it into the ground.*

When the necessary constituents of the plant exist in very minute quantities in the soil, and the physical state of the soil is unfavorable, there will be little disposition to tiller; and *no quantity* of seed will produce a large crop. I scattered some oats on the top of a charred stump, in the shade, with a bare covering of straw; at harvest, my crop consisted of single stalks three to five inches high, with a *single grain*, on each. This is a fair specimen of what botanists call a *normal* growth.

The seed of some varieties of wheat, is larger than that of others; and some kinds throw up more stems. In a rich soil, the Jersey Dantzic "tillers amazingly." Of sixteen varieties, planted with mathematical accuracy, under the same apparent circumstances,

One variety produced an average of			2	heads to root,	
Another	"	"	3½	"	"
Four varieties	"	"	4	and upward,	
Five	"	"	5	"	"
Two	"	"	6	"	"
Two	"	"	7	"	"

Of *our* wheat, one and a half bushel of flint kinds, is estimated equivalent to two bushels of other varieties sown. Polish wheat, if not sown *sparingly*, is apt to lodge. But the tillerage of wheat is greatly influenced by drilling, or thin sowing, and other modes of putting the seed in; and by cultivation. A single seed has produced 106 stems, and 5512 grains: *two quarts* of equally prolific seed, would be all-sufficient for an aker; and the product would be 344 bushels! Twelve grains have tillered, so as to have yielded at the rate of 185 bushels to the aker! (I have ascertained that there are about 184,160 grains of wheat in a bushel of sixty pounds.) By a division of the root, a single kernel of wheat, has been made to tiller to the amount of 1972 stems, yielding 98,600 grains! Such a mode of cultivation would require but eighty-eight grains to stock an aker with plants six inches apart.

By the table, it appears the English plant eight to twelve bushels of potatoes to the aker; other authorities (English) represent twenty to twenty-five as the average number of bushels per aker. In this country, twenty bushels of cut potatoes have yielded 510 bushels; and three bushels only per aker have produced 300 bushels.

Wash for Fruit Trees, p. 59.—After an experience of years I can testify to the efficacy of scouring fruit trees with an alkaline wash. I have used strong soapsuds, or ashes and water. The hand should be well greased or otherwise protected, to prevent the action of the ley upon the skin: if the skin *should* become corroded, a little vinegar will, in a few moments, restore the proper feeling to it.

Manure, p. 60.—Every conceivable refuse vegetable and animal matter upon my premises, goes to my compost heap. All dead animals are buried there; all the "excrementitious matter, slops, suds, and scraps" know their place; and as a cheap, effectual, and convenient absorbent of the liquids and offensive gases, I use the rotted chips of my wood-yard. By using the fertilizing contents of the wash-tub, I add, very economically, about *two barrels of soap*, annually, to my stock of manure. Our leached ashes, of course, are emptied there.

Peach-pits, p. 60.—Six or eight years ago, perhaps, I planted some peach-stones, took them up in the spring, cracked a portion of them; and by way of experiment planted the naked "meats,' and the uncracked stones side by side. In due time they germinated, the naked and covered, alike soon. I think there is no advantage in cracking them.

Shade Trees, p. 61.—Many locusts (Robinia pseudacácia) in the west, have been destroyed by the borer. On p. 62, the reader will please to say Ulmus *fulva*, not *pulva*. And the editor may add to the species of Maple in our forests, the A'cer nigrum, or Black Maple, highly recommended as an ornamental tree; and I believe it stands next to the A'cer saccharinum, for sugar. I saw numerous trees of this kind along the National Road, some distance west of Indianapolis.

Time of Pruning.—Let us turn back to page 58. Another material advantage in pruning at the season recommended, is that few or no shoots sprout from the wound. I have pruned, by way of experiment, in almost every month in the year; and my memorandums show, that pruning done at a much earlier or later period, is followed either by a very dilatory healing, or an abundance of sprays.

Onions.—And then to p. 59—The chief difficulty complained of by those who have failed to raise onions from seed, is in the germination. By securing a proper degree of moisture around the seed, by some means, failures would be rare. Very early sowing, for this reason, is generally successful. The earth must be kept in contact with the seed; and the seed must not be more than one or two years old; though I have had them to vegetate irregularly when four or five years old. Onions or their seed may be put into the ground as soon as the garden can be tilled. When in the ground, they endure much cold: one of my notes says: "Top onions which produced bulbs last year, and were *left in the ground during the winter* of 1840–1, are now (spring of '41) growing finely. Many of the bulbs also, which fell on the ground in the fall, are growing." They were partially sheltered by shrubbery. The character of the winter may be seen by turning to "Winters in Wayne County," p. 154.

Have our farmers tried the means of preventing

onions from growing, proposed on p. 41? Onions are resolute things to grow: I buried some in a box, one fall, a foot deep in saw-dust, and thoroughly dried by fire, and kept the box in my office. In the spring, I found they had grown up through the saw-dust into the air.

Jno. Armstrong, in his Treatise on Agriculture, quotes Bose as having seen onions *one foot in diameter, and larger:* has any body else seen such?

Asparagus, p. 59.—If the reader should incline to use salt on his asparagus bed, as recommended, let it be undissolved; or if he use brine, be sure to apply it before the younger plants come up; for if it come in contact with them, it will kill them. Very little will answer. Remember, the editor is speaking of *spring* work, and *early* spring work: he does not advise the use of salt when the plants have covered the bed. J. T. P.

CITY GREEN HOUSE.

A green house attached to a city residence, adds much to the comforts of its inmates. It embellishes without leading to frivolity, and imparts unalloyed pleasure without impairing the morals; nay, it has a refining and wholesome influence at once upon the heart and taste. At this season of the year it is a flower garden in miniature, containing the representatives of Flora from different countries, where

* * "blooms exotic beauty, warm and snug,
While the winds whistle, and the snow descends."

There may be, in a well selected range of flowers, some to gratify every taste and while the mere temperature and the balmy air is peculiarly grateful to the senses, the groupes of flowers enhance the pleasure to positive delight. One might almost turn into a poet in such a place, were it not true, that, Poeta nascitur, non fit. But poet or not, no one except the very dullest can fail to experience a great excitement of imagination in the pleasing contrasts afforded by leaves, flowers and floral habits. Some plants stretch upward, erect and self-sustained; some creep and recline upon the soil, while others cling and climb upon the nearest support. Without the dangers of the voyage, one may here study the flowers of the world. The groups of the *Camnelia*, from Japan, of every hue of flower, the bell-flowered tribe of *Erica*, gathered from New Holland and Great Britain—a representative, thus, of two islands, in two different hemispheres; the pendulous-flowered *acacia;* the orange and lemon of commerce, the far-famed India rubber plant (*Ficus elásticus,*) the tea shrub and coffee bush, these all, with their many companions, cheer the eye, and while away the gloomy hours of shivering winter.

EDWARD SAYERS.

KEEPING SWEET POTATOES.

In the summer of 1844 I raised about twenty bushels of sweet potatoes, which were very fine. I gathered them in the early part of the tenth month (October) and put them in two different piles in the field, and let them remain for five or six days. I then hauled them into an open house and spread them on the floor and sorted out the large ones for table use. The sound ones were selected for seed, from amongst the small ones, rejecting all that showed any signs of decay. The whole of them remained on the open floor until they were dry and slightly withered. I then packed eight bushels in boxes with alternate layers of dry sand and kept them in a warm, dry room till spring, and, on examining them, they were all sound and good except about one peck, which had taken a dry rot and become quite hard and dry.

This season, 1845, I raised about one hundred and fifty bushels from twelve thousand plants—a very poor crop for the amount of plants. This was owing entirely to the unfavorable season, viz: late frosts followed by the drought. I pursued nearly the same course as last year with about fifty bushels designed to be kept over winter; and so far the prospect is very fair, with the exception of one box which I put up in leaves. They became too warm and damp; but instead of rotting, they swelled out plump and fair, and commenced sprouting; it being rather early for a hot bed for the sale of plants, I turned them out of the box and dried them, and then packed them back in the box for another trial. So far as my experiments in the operation have gone, I find it quite necessary to let the potatoes pass through a thorough sweat, and then to dry them well before packing. I have no doubt that, after a little experience, any of the farmers may keep them till near the time of new potatoes; two of my neighbors did, last season; and if two, why not twenty?

I wish, by these remarks, to call out the practice and results of others. Speak out, potato raisers, and let us know the best plan; for some of us are desirous of gaining information on this subject.

I shall give my plan of hot-beds and cultivation in another number, near the time of operation.

Wayne Co., Ia. G. M.

CURE FOR WORMS IN THE HEAD OF SHEEP.

I have seen much written on the cure of sheep affected with worms in the head. The affection produces coughing, sneezing, and is, by some, called the rot. There is one remedy which I have used with great success, and which I have never seen published: Steep tobacco in hot water, and make strong ambier. When cool, turn up the sheep's nose and pour about two teaspoonsful of it into each nostril. I have hardly ever failed to effect a cure with it. SAM'L FOLSOM.

FREEDOM, Owen county, Ia.

A LARGE ROSE.—I have now a rose growing in my green-house which, when in full bloom, measured eleven inches and three quarters in circumference. It was double and perfect, and the first ever produced on the bush. The bush was not more that twelve inches high, and the stem not larger than a large straw of timothy grass. It had to be staked up during the time of blooming. It is a Bengal rose, named triumph of Luxemburg. The bloom is a beautiful light pink, rather bordering on an ash color. G. M.

PROFITS OF FRUIT.—The Boston Cultivator says, that one of the largest and most flourishing peach orchards in New Jersey, a few years ago, every tree of which was in good condition, yielded fruit in one year which sold for sixteen thousand dollars. The number of trees or extent of ground occupied, are not stated.

SELECTIONS.

VIEW OF EUROPEAN GRAIN CROPS.

The following extracts from a Continental paper—*Gazette d'Augsburg*—we take from the Albany Cultivator:

Russia will have sufficient corn for the whole empire, without purchasing any foreign corn. Its Governments are in a position to assist mutually each other, but it is very doubtful whether they can send much corn abroad.

The crops of Poland are not sufficient for its general consumption; and, unless it has been previously supplied will suffer from a scarcity, or be obliged to receive corn from abroad. But whom can one have recourse to when one's neighbors have only had themselves but middling crops, and have not wherewith to supply the deficiency? Money also is scarce in Poland, and important sums cannot be sent abroad to purchase corn.

The kingdom of Prussia has greatly suffered last year and this from inundations, which have ravaged precisely its most fertile countries; and want, which is generally felt there, is on the point of transforming itself into actual famine.

The news from Pomerania agrees in stating that the results of the last crops are very mediocre.

In the Grand Duchy of Posen only a middling crop has been attained, and anterior provisions can alone prevent a scarcity. The author does not remember having heard such numerous and general complaints, unless it be in the years 1804 and 1817. God grant that the unfortunate events of that epoch be not again reproduced! There are in this province whole countries where the usual corn sellers will be obliged themselves to make purchases the next spring. The situation of Galicia is still worse. The price of rye rose sixty per cent. immediately after the crops: it is still on the rise.

In Hungary, which is usually so productive, the Government has been obliged to lay in large stores of corn to prevent a famine. The hope entertained of having good crops has been still more cruelly disappointed than in Silesia.

In Austria, Moravia, and Bohemia, the results of this year's crop are below those of the average ones, and must scarcely suffice for the general consumption.

If we consider the west of Germany, we find first of all, that the crops in Saxony have not precisely failed, although they are very far from being abundant. The same may be said of the provinces of Brandenburg, and of Madgbeurg.

Bavaria, like other countries, has suffered greatly this year from hail-storms and water-spouts; the results of the crops have in consequence been diminished, as likewise by the state of the atmosphere, which has shown itself but little favorable to the cultivation of corn.

Wurtemburg, the country of Baden, Westphalia, and the Rhenish provinces, have been better treated; but the disease which has ravaged the potato crop will be severely felt. Nevertheless, the potato crop has been generally good throughout Western Germany; it will supply many deficiencies in the crops of other places, although they are not so much grown as in other parts of Germany.

Belgium and Holland have had but bad crops; and the news from France sufficiently proves that this year has not been a productive one.

Spain occupies but an inferior rank among corn-growing countries; still reports from this country do not mention that the crops have been deficient.

England, where the states of the European continent generally find a market for their surplus corn, appears to-day to be reassured on the wants of its internal consumption, or at least the alarming news which arrived from that country has been succeeded by much more favorable intelligence. Those who count upon corn supplies from the Baltic and provinces of the North Sea will be greatly deceived; the prices of these productions will first of all be very high, and in the second place, the quantities that can be supplied very small. A great quantity of wheat has this year been struck by blight; and this disease, which has spread throughout Germany, Poland, and Hungary, has deteriorated the quality of the corn as well as diminished the quantity. Further, it cannot now be accurately known whether at a later period England will not be reduced to supply itself from abroad, for it is well known that it is only in case of an abundant crop that enough corn can be grown for the country. In the contrary case, she will look to supplies from America, or from the countries bordering on the Black Sea.

In Scandinavia, that is to say Denmark, Norway, and Sweden, the crops have not been satisfactory. In a few words, then, it may be said that for many years past there has not been so unfavorable a year as the present one; and if it be added that last year only furnished but indifferent crops in comparison with the preceding ones, this circumstance ought to give rise to measures being taken to prevent the danger which threatens us.

CONTENTS OF THIS NUMBER.

INDIANA FARMER AND GARDENER—NEW OFFER, &c., - - - - - - - 17
HORTICULTURAL NOTES, - - - 18, 19
PARLOR FLOWERS IN WINTER, - - 20, 21
FARMERS' AND GARDENERS' LIBRARY, CRAZY FARMING, - - - - - - - 22
ELECTRO-CULTURE, - - - - - - 23
SINGLE-CROP FARMING, IMPROVED BREEDS OF HOGS AND CATTLE, - - - - 24
MORE SHIFTLESS TRICKS, - - - - 25
ABSORBENT QUALITIES OF FLOUR, - - 26
HAY—BENEFITS OF SCARCITY, FLOWER GARDEN FOR JANUARY, - - - - - - 27
MANAGEMENT OF A COCOONERY, - - - 28
REVIEW OF VOLUME ONE, - - - 29, 30
CITY GREEN-HOUSE, KEEPING SWEET POTATOES, CURE FOR WORMS IN SHEEPS' HEADS, LARGE ROSE, - - - - - - - - - 31
VIEW OF EUROPEAN GRAIN CROPS, - - 32

TERMS.—*The* FARMER AND GARDENER *is published* SEMI-MONTHLY, *each number containing Sixteen royal octavo pages, at* ONE DOLLAR *per annum per copy;* SEVENTY-FIVE CENTS *per copy for Four and less than Ten copies; and* FIFTY CENTS *for Ten or more copies to the same Post Office. All subscriptions* IN ADVANCE.